

# **Healthy Nutrition 101**

## **Mini Online Course**



**Sharice Cabral**

**Laureen Kodani**

**Melissa Kunitzer**

**University of Hawai'i, Mānoa**

Submitted to Dr. Curtis Ho

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ETEC 632 – Spring 2011

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**Abstract:**

The purpose of this course is to educate students about nutrition and its healthy or unhealthy effects on personal well-being. The need was to create an online course to update current curriculum, learning objects, integrate technology, and current methodology for the twenty-first century learner. We chose to focus on ninth and tenth grade students at a large private high school in Honolulu, Hawaii. The audience consists of a diverse group of students from various socioeconomic backgrounds and learning abilities. We determined that given a synchronous and asynchronous instruction and materials, the high school student will be able to analyze the healthy and unhealthy nutritional choices by creating a multimedia final presentation. To develop the online course we used the ADDIE model to collaboratively create the content objectives, learning objects and various multimedia presentations. In addition, we integrated outside professional educational resources. We also used the course management system Lulima as the interface in which our Weebly course website was embedded.

## Healthy Nutrition 101

### Content:

#### **Rationale or Need:**

The overall goal of this Healthy Nutrition course is to assist young people in learning valuable life skills that will enable them to meet the challenges they will encounter in regard to their physical, emotional, and mental well-being. The increase of onset (type 2) diabetes, obesity, lack of energy, slower mental and muscle response, and other health risks in children, teenagers, and young adults are, in part, due to poor nutritional choices. Education is a fundamental tool for guiding young people toward a healthy and nutritious lifestyle.

#### ***Describe how the course will improve conditions or address a problem or need:***

As young people learn essential facts about the correlation between nutrition and health, they also learn to make informed, wise, and good decisions. Comparing current nutritional lifestyles to a beneficial and preferred lifestyle increases knowledge of total well-being. Healthy nutrition which promotes long-term health and deters harmful risks will help students choose a healthy, fulfilling, and more rewarding life!

#### ***Explain why the Web is the preferred method of instructional delivery:***

The Web for online learning is the preferred method of instructional delivery for several reasons. The Online course serves as a supplement to the face-to-face instruction. It is a perpetual source of information where students have access 24/7. Content can be easily updated to reflect the latest nutritional facts, data, and information. Furthermore, dialogue amongst students can occur in discussions, blogs, or private messaging which builds a community of learners and encourages a supportive social network.

#### ***Describe current conditions, problem or need:***

##### ***Current condition:***

Students do not know the relationship between nutrition and health and therefore make poor nutritional choices.

##### ***Ideal State:***

Students should understand the effects of nutrition and choose to consume food which contributes to a healthy lifestyle and state of well-being.

## Goals and Objectives:

### *Describe major goal of the course:*

- *Educate students about healthy and unhealthy nutrition and its effects on personal well-being!*

### *List specific learning objectives/outcomes that describe skills, knowledge or attitude being addressed by the course:*

- **Food Guide Pyramid** - [www.mypyramid.gov](http://www.mypyramid.gov)
  - **Learning Objectives:**
    - [A] The high school student -
      - will be able to navigate the MyPyramid website, given a computer, Internet access, and url address, with each attempt.
        - [B] will be able to navigate the MyPyramid website
        - [C] given a computer, Internet access, and url address
        - [D] with each attempt
      - will be able to create an individualized nutrition plan, after submitting their age, sex, weight, height, and activity level, within 5 minutes.
        - [B] will be able to create an individualized nutrition plan
        - [C] after submitting their age, sex, weight, height, and activity level
        - [D] within 5 minutes
      - will compare their present daily diet to their newly created MyPyramid.gov customized plan, given the results from myPyramid.gov, by listing their food intake in a 24-hour meal journal.
        - [B] will compare their present daily diet to their newly created MyPyramid.gov customized plan
        - [C] given the results from MyPyramid.gov
        - [D] by listing their food intake in a 24-hour meal journal
- **Dietary Guidelines**
  - **Learning Objectives:**
    - [A] The high school student –
      - will be able to list the U.S. Dietary guidelines in their web journal, after watching the U.S. Dietary guidelines tutorial, without error as defined by the tutorial.

- [B] will be able to list the U.S. Dietary guidelines in their web journal
- [C] after watching the U.S. Dietary guidelines tutorial
- [D] without error as defined by the tutorial
- will be able relate the U.S. Dietary guidelines to their own personal diet, after completing the U.S. Dietary guidelines tutorial, by submitting a personal comparison journal.
  - [B] relate the U.S Dietary guidelines to their own personal diet
  - [C] after completing the U.S. Dietary guidelines tutorial
  - [D] by submitting a personal comparison journal
- will be able to explain the U.S. Dietary guidelines, given a computer, Internet access, and PowerPoint software, with a five-minute, multi-media presentation plan for how Americans can meet the Dietary Guidelines.
  - [B] will be able to explain the U.S. Dietary guidelines
  - [C] given a computer, Internet, access, and PowerPoint software
  - [D] with a five-minute, multi-media presentation plan for how Americans can meet the Dietary Guidelines
- will be able to identify health risks related to excess sodium intake, given computer, Internet access, and PowerPoint software, within their five-minute, multi-media presentation plan for how Americans can meet the Dietary Guidelines.
  - [B] will be able to identify health risks related to excess sodium intake
  - [C] given computer, Internet access, and PowerPoint software
  - [D] within their five-minute, multi-media presentation plan for how Americans can meet the Dietary Guidelines
- will be able to identify health risks related to excess sugar intake, given computer, Internet access, and PowerPoint software, within their five-minute, multi-media presentation plan for how Americans can meet the Dietary Guidelines.
  - [B] will be able to identify health risks related to excess sugar intake
  - [C] given a computer, Internet, access, and PowerPoint software

- [D] with a five-minute, multi-media presentation plan for how Americans can meet the Dietary Guidelines
- **Nutrients**
  - **Learning Objectives:**
    - [A] The high school student
      - will be able to list the three major nutrients in a Laulima discussion post after reading the given materials on nutrients.
        - [B] will be able to list the three major nutrients
        - [D] in a Laulima discussion post
        - [C] after reading the given materials on nutrients.
      - will be able to give three examples of nutrients in a Laulima discussion post after reading the given materials on nutrients.
        - [B] will be able to give three examples of nutrients
        - [D] in a Laulima discussion post
        - [C] after reading the given materials on nutrients.
      - will be able to explain how the nutrients support bodily functions and prevent disease in a group presentation after reading the given materials on nutrients.
        - [B] will be able to explain how the nutrients support bodily functions and prevent disease
        - [D] in a group presentation
        - [C] after reading the given materials on nutrients.
- **Reading labels**
  - **Learning Objectives:**
    - [A] The high school student
      - will accurately cite the different parts of an anatomy of a nutrition label, given 3 food item labels, on 2 out of 3 different food labels.
        - [B] will accurately cite the different parts of an anatomy of a nutrition label
        - [C] given 3 food item labels
        - [D] on 2 out of 3 different food labels
      - will compose a list of the Recommended Daily Allowance (RDA) for fiber, sugar, carbohydrates, and fat, after completing the RDA tutorial, as defined by the RDA tutorial.
        - [B] will compose a list of the Recommended Daily Allowance (RDA) for fiber, sugar, carbohydrates, and fat

- [C] after completing the RDA tutorial
- [D] as defined by the RDA tutorial
- **Fiber, Sugar & Fat**
  - **Learning Objectives**
    - [A] The high school student-
      - will be able to explain the importance of fiber, sugar and fat to the human digestive system upon completing the “It’s an inside job” module, in a one page essay.
        - [B] will be able to explain the importance of fiber, sugar and Fat to the human digestive system
        - [C] upon completing the “It’s an inside job” module.
        - [D] in a one page essay.
      - will be able to identify a whole grain product, after viewing the dietary video and written description, as defined by the formula for measuring fiber in grams .
        - [B] will be able to identify a whole grain product,
        - [C] after viewing the dietary video and written description
        - [D] as defined by the formula for measuring fiber in grams
      - will be able to calculate the teaspoons of sugar in a serving of a food product, given a formula and a food label, as defined by the formula for measuring the amount of teaspoons of sugar in each gram.
        - [B] will be able to calculate the teaspoons of sugar in a serving of a food product
        - [C] given a formula and food label
        - [D] as defined by the formula for measuring the amount of teaspoons of sugar in each gram.
      - will be able to define the types of fat on a food label, after viewing the informational PowerPoint on fats by posting an example of each fat in the class discussion.
        - [B] will be able to define the types of fat on a food label
        - [C] after viewing the informational PowerPoint on fats
        - [D] by posting an example of each fat in the class discussion.

- **Fast food vs Fresh food (final project/unit idea):**
  - Groups of students compare the effects of fast food by providing alternatives with sustainable fresh food benefits.

Each group will choose a fast food restaurant and select menu items to analyze
  - Each group identifies a sustainable fresh food alternative to the fast food menu item.
  - **Learning objective:**
    - The high school student
      - will explain the dangers of the selected fast food items after receiving project instructions and a rubric, by correctly analyzing the fat, sugar, and sodium content in a twelve-slide PowerPoint presentation.
        - [B] will explain the dangers of the selected fast food items
        - [C] after receiving project instructions and a rubric
        - [D] by correctly analyzing the fat, sugar, and sodium content in a twelve-slide PowerPoint presentation
      - will identify a local, sustainable, fresh food alternative to the fast food menu item given a list of Hawaii vendor items by including the information in the twelve-slide PowerPoint presentation
        - [B] will identify a local, sustainable, fresh food alternative to the fast food menu item
        - [C] given a list of Hawaii vendor items
        - [D] by including the information in the twelve-slide PowerPoint presentation
      - will provide an example of a health related disorder or disease attributed to fast food choices, given the food facts from their chosen menu items, within their twelve-slide PowerPoint presentation.
        - [B] will provide an example of a health related disorder or disease attributed to fast food choices
        - [C] given the food facts from their chosen menu items
        - [D] within their twelve-slide PowerPoint presentation

***Describe audience (age, learning styles, etc.):***

- Kamehameha high school children from 14-15 years of age located at Kapalama Heights campus on the island of O`ahu, Hawaii.
- Diverse ethno-socio backgrounds with an entho-base of Hawaiian ancestry.
- Diverse learning styles, ranging from high performance students to marginal achievers.
- One-third of the students are boarders that reside in campus dormitories two-thirds of the calendar year.
- Students come from across the state of Hawai`i.
- Each student has in his/her possession of a working Mac laptop and access to the campus WIFI.

## Course Timeline

Week	Module
<u>1</u>	<b>Introduction and Food Guide Pyramid:</b> <ul style="list-style-type: none"> <li>• Unit Introduction, Final project introduction and rubric discussed</li> <li>• Visit mypyramid.gov website and create individualized plan</li> <li>• Compare current daily diet to newly created plan</li> </ul>
<u>2</u>	<b>Dietary Guidelines:</b> <ul style="list-style-type: none"> <li>• Introduction to the U.S. Dietary guidelines website and tutorial</li> <li>• Relate the U.S. Dietary guidelines to the students' own personal diet</li> <li>• Explain the U.S. Dietary guidelines</li> <li>• Identify health risks related to excessive intakes</li> </ul> <b>Nutrients:</b> <ul style="list-style-type: none"> <li>• Introduction to the three major nutrients</li> <li>• List three examples of nutrients</li> <li>• Discuss how nutrients benefit the body</li> </ul>
<u>3</u>	<b>Reading Labels</b> <ul style="list-style-type: none"> <li>• Introduction to the Nutrition Label parts</li> <li>• Introduction to the Recommended Daily Allowance of fiber, sugar, carbohydrates and fat and tutorial</li> </ul>
<u>4</u>	<b>Fiber, Sugar, &amp; Fat</b> <ul style="list-style-type: none"> <li>• Introduction to Fiber, Sugar, &amp; Fat</li> <li>• Identify whole grain products by weight of different items</li> <li>• Calculate teaspoons of sugar by formula of different items</li> <li>• Define fat on food labels</li> </ul>
<u>5</u>	<b>Fast Food vs Fresh Food</b> <ul style="list-style-type: none"> <li>• Compare fast food effects with fresh food benefits</li> <li>• Choose a fast food restaurant and a food item from its menu</li> <li>• Explain dangers of fast food items by fat, sugar and sodium content</li> <li>• Identify fresh food alternatives to the fast food item</li> <li>• Identify health related issues attributed to fast foods</li> <li>• Finish up final project and presentation (last day)</li> </ul>

### Software and hardware required:

- Macbook that is issued to every student
- Flash Drive used for final project and to carry data.
- WIFI Internet connection
- Applications: Microsoft Office suite (Word, PowerPoint), iMovie, Quicktime, DVD Player

### Outside resources needed:

- [www.MyPyramid.gov](http://www.MyPyramid.gov)
- PDFs
- PowerPoint

**Content outline:****Week 1 - Introduction and Food Guide Pyramid**

- Synchronous session via Elluminate:
  - Introduction to Nutrition 101 (Learning Object #1).
    - Instructor narrated PowerPoint on Introduction to Nutrition 101.
  - MyPyramid.gov website:
    - Students experience MyPyramid.gov website and create their own individualized nutritional plan.
- Asynchronous:
  - Reading & Viewing Materials located in Lulima Weekly Modules.
    - Video: [Ann Cooper Talks School Lunches](#)
    - Video: [Nutrition for Children and Teens](#)
    - Reading: [Harvard School of Public Health](#)
  - Activities:
    - Activity 1 - [MyPyramid.gov tutorial](#). (Learning Object #2)
      - Student will watch the tutorial on the site.
    - Activity 2 - MyPyramid.gov [Individualized Nutrition Plan](#)
      - Student will complete their individualized nutrition plan on MyPyramid.gov and submit via Assignments in Lulima.
    - Activity 3 - Lulima discussion
      - Student will post their comparison of current diet to nutrition plan created on MyPyramid.com.
    - Activity 4 - 24-hour Food Log Journal
      - Student uses 24-hour food log journal template to chart their meals and snacks.

**Week 2 - U.S. Dietary Guidelines (DG)**

- Synchronous session via Elluminate:
  - Introduction to the [U.S. Dietary Guidelines](#) website and tutorial (Learning Object #3).
    - Instructor generated PowerPoint on U.S. Dietary Guidelines, demonstrates website and tutorial.
- Asynchronous:
  - Reading & Viewing Materials located in Lulima Weekly Modules:
    - Reading: WebMD Health News: [The New Dietary Guidelines](#) by Daniel DeNoon.
    - Video: [U.S. Issues New Dietary Guidelines](#)
  - Activities:
    - Activity 5 - Lulima Discussion
      - 24-hour food log.

- Student will compare their own diet to the [US Dietary Guidelines](#) and list 3 improvements which can be implemented in diet.
- Activity 6 - Laulima Forum
  - Group Assignment (Instructor assigns 3 students per group)
  - Students will create a multimedia presentation, using the dietary guideline.
  - Presentation must include definition of DG, two realistic examples of how to meet the DG in personal lives, and at least one health risk.

### **Week 3 - Nutrients & Reading Labels**

- Synchronous session via Elluminate:
  - Nutrient PowerPoint define what are nutrients and Nutrition Product Labels ([Learning object #4](#)).
- Asynchronous:
  - Reading & Viewing Materials located in Laulima Weekly Modules:
    - Reading: [All About Food Labels](#)
    - Video: Nutrition By Natalie
      - [Food Labels 1](#)
      - [Food Labels 2](#)
  - Activities:
    - Activity 7- Laulima Discussion
      - Student finds one recipe that includes the major nutrient assigned by Instructor and make the recipe.
      - Student will post the recipe, share about the experience, and emphasize the nutrient value.

### **Week 4 - Fiber, Sugar, and Fats**

- Synchronous session via Elluminate:
  - Instructor narrated PowerPoint highlighting benefits and effects of fiber, sugar and fat ([Learning object #5](#)).
- Asynchronous:
  - Reading & Viewing Materials located in Laulima Weekly Modules:
    - Reading: [Why You Need More Fiber](#)
    - Video: [Healthline.com Nutrition and Fiber Facts](#)
    - Reading: [The Real Deal on Whole Grains](#) (*Video pending*)
    - Reading: [The Truth About Sugar](#)
    - Reading: [The Truth About Fat, Nutrition and Cholesterol](#)

- Activities:
  - Activity 8 – 5 Food Labels Laulima Assignment
    - Student gathers 5 food labels either online or in your kitchen.
    - Complete the The Real Deal on Whole Grains Worksheet
  - Activity 9 – Laulima Discussion
    - Student researches a health risk of choice, post to a response to: How the lack of or excess intake of fiber, sugar, and fat can harm the body.
  - Activity 10- Final Project Presentation
    - Start working on final presentation, choose group members and Fast Food Venue.

### **Week 5 - Fast Food vs. Fresh Food**

- Synchronous session via Elluminate:
  - Comparison and discussion of fast food versus fresh food (dangers, alternatives, health risks, etc.).
- Asynchronous:
  - Reading & Viewing Materials located in Laulima Weekly Modules:
    - Optional Reading: [Fast Food News Articles and Information](#)
    - Optional Videos: Nutrition by Natalie
      - [The Fast Food Conspiracy](#)
      - [Healthy Fast Food Menu Item?](#)
      - [Worst Fast Food Items](#)
      - [Worst Non-Fast Food Items](#)
  - Activities:
    - Activity 11 - Final Project Presentation
      - Complete final presentation and submit Assignments in Laulima.
    - Activity 12 – Post-test with two qualitative questions
      - Complete post-test at the end of the unit.

**Course Schedule:**

<b>Week</b>	<b>Topic</b>	<b>Location</b>	<b>Readings/Activities</b>
<b><u>1</u></b>	<b>INTRODUCTION AND FOOD GUIDE PYRAMID:</b>		
	<b><u>SYNCHRONOUS:</u></b> <ul style="list-style-type: none"> <li>Unit Introduction, Final project introduction. discuss rubric</li> <li>Visit mypyramid.gov website and create individualized plan</li> </ul>	<b>Elluminate</b>	<ul style="list-style-type: none"> <li>Introduction to Nutrition 101</li> <li>Q &amp; A</li> </ul>
	<b><u>ASYNCHRONOUS:</u></b> <ul style="list-style-type: none"> <li>Compare current daily diet to newly created plan</li> <li>Elicit performance from students by individual participation and reflection</li> </ul>		<ul style="list-style-type: none"> <li>Watch assigned video(s)</li> <li>Read assigned material</li> <li>Mypyramid.gov tutorial</li> <li>Create individualized Nutrition Plan, submit via Lulima</li> <li>Post response to blog discussion #1 - compare current diet and the nutrition plan created on MyPyramid.gov.</li> <li>Keep a 24 hour food log/journal using the worksheet provided</li> </ul>
<b><u>2</u></b>	<b>U.S. DIETARY GUIDELINES:</b>		
	<b><u>SYNCHRONOUS:</u></b> <ul style="list-style-type: none"> <li>Introduction to the U.S. Dietary guidelines website and tutorial</li> </ul>	<b>Elluminate</b>	<ul style="list-style-type: none"> <li>Review the U.S. Dietary Guidelines Website and Tutorial</li> <li>Q &amp; A</li> </ul>
	<b><u>ASYNCHRONOUS:</u></b> <ul style="list-style-type: none"> <li>Relate the U.S. Dietary guidelines to the students' own personal diet</li> <li>Explain the U.S. Dietary guidelines</li> <li>Identify health risks related to excessive intakes</li> <li>Elicit performance from students through group interaction</li> </ul>		<ul style="list-style-type: none"> <li>Watch assigned video(s)</li> <li>Read assigned material</li> <li>Using your 24 hour food log, answer the questions provided and respond in the class discussion in Lulima</li> <li>In groups of 3, assigned by the instructor, students will use the dietary guideline given and create a multimedia presentation then post in Lulima Forum <ul style="list-style-type: none"> <li>define the DG</li> <li>share two realistic examples on how you can meet the DG in your life</li> <li>share at least one health risk that is related to the DG assigned</li> </ul> </li> </ul>

<b><u>3</u></b>	<b>NUTRIENTS AND READING LABELS:</b>		
	<p><b><u>SYNCHRONOUS:</u></b></p> <p><b>Nutrients:</b></p> <ul style="list-style-type: none"> <li>• Introduction to the three major nutrients</li> <li>• List three examples of nutrients</li> <li>• Discuss how nutrients benefit the body</li> </ul> <p><b>Reading Labels:</b></p> <ul style="list-style-type: none"> <li>• Introduction to the Nutrition Label parts</li> <li>• Introduction to the Recommended Daily Allowance of fiber, sugar, carbohydrates and fat tutorial</li> </ul>	<b>Illuminate</b>	<ul style="list-style-type: none"> <li>• Discuss online the different Multimedia presentations and review DG</li> <li>• Introduction to basic nutrients and the importance and facts about reading labels</li> <li>• Q &amp; A</li> </ul>
	<p><b><u>ASYNCHRONOUS:</u></b></p> <ul style="list-style-type: none"> <li>• Students interact and provide feedback in Lulima</li> <li>• Elicit performance from students by practicing skills learned</li> </ul>		<ul style="list-style-type: none"> <li>• Watch assigned video(s)</li> <li>• Read assigned material</li> <li>• Have students find one recipe that includes the major nutrient assigned and actually make the recipe <ul style="list-style-type: none"> <li>○ Post the recipe in Lulima discussion</li> <li>○ Student journals the experience by answering questions in prompt</li> <li>○ Student emphasizes the nutrient value of the recipe</li> </ul> </li> </ul>
<b><u>4</u></b>	<b>FIBER, SUGAR &amp; FATS</b>		
	<p><b><u>SYNCHRONOUS:</u></b></p> <ul style="list-style-type: none"> <li>• Introduction to Fiber, Sugar, &amp; Fat</li> </ul>	<b>Illuminate</b>	<ul style="list-style-type: none"> <li>• Watch the narrated power point on Fiber, Sugar and Fats</li> <li>• Q &amp; A</li> </ul>
	<p><b><u>ASYNCHRONOUS:</u></b></p> <ul style="list-style-type: none"> <li>• Identify whole grain products by weight of different items</li> <li>• Calculate teaspoons of sugar by formula of different items</li> <li>• Define fat on food labels</li> <li>• Elicit performance from students by individual practice and application</li> </ul>		<ul style="list-style-type: none"> <li>• Watch assigned video(s)</li> <li>• Read assigned material</li> <li>• Student gathers 5 nutrition labels and completes the worksheet given on Fiber, Sugar and Fats</li> <li>• Research a health risk (of their choice) and post in Lulima Discussion: How the lack of or excess intake of fiber, sugar and fat can harm the body</li> </ul>

	<ul style="list-style-type: none"> <li>Elicit performance from students through group activity</li> </ul>		<ul style="list-style-type: none"> <li>Start working on Final Project in groups of 4: email professor group members and fastFood restaurant chosen by_____</li> </ul>
<b>5</b>	<b>FAST FOOD VS FRESH FOOD</b>		
	<p><b><u>SYNCHRONOUS :</u></b></p> <ul style="list-style-type: none"> <li>Compare fast food effects with fresh food benefits</li> <li>Choose a fast food restaurant and a food item from its menu</li> <li>Explain dangers of fast food items by fat, sugar and sodium content</li> <li>Identify fresh food alternatives to the fast food item</li> <li>Identify health related issues attributed to fast foods</li> <li>Finish up final project and presentation (last day)</li> </ul>	<b>Elluminate</b>	<ul style="list-style-type: none"> <li>See Final Project assignment page for details</li> <li>Q &amp; A</li> </ul>
	<p><b><u>ASYNCHRONOUS</u></b></p> <ul style="list-style-type: none"> <li>Students synthesize Unit on Healthy Nutrition</li> <li>Students complete post-test</li> </ul>	<b>Laulima</b>	<ul style="list-style-type: none"> <li>Watch assigned video(s)</li> <li>Optional reading</li> <li>Students work in groups to complete Final Project</li> <li>Students submit Final Project via Assignments in Laulima</li> <li>Students complete post-test prior to the end of the course unit</li> </ul>
<b>Extra Credit</b>			
	<p><b><u>ASYNCHRONOUS</u></b></p> <ul style="list-style-type: none"> <li>Students build a community of learners</li> <li>Students share information on healthy nutrition</li> </ul>	<b>Laulima Wiki</b>	<ul style="list-style-type: none"> <li>Optional extra credit work</li> <li>Students post links, articles, and personal comments pertaining to nutrients, reading labels, fiber, sugar, and fats.</li> </ul>

**Description of learning objects:**

- ***REFER to Content Outline:***
  - The five (5) learning objects are identified and described in the Content Outline section
- Assignment sheets with expectations needed for each week
  - Refer to Reading and Video List in the appendix section
- Rubrics and check lists
  - Refer to Final project rubric in the appendix section

## Appendix A

### *Syllabus*

#### Healthy Nutrition 101 Syllabus

Fall 2011

#### **Class meeting time and location**

On campus: Paki 201

Online: Ms. Cabral's Elluminate Live! vroom: TBA

#### **Instructors**

Sharice Cabral: sharice@hawaii.edu

Laureen Kodani: ampong@hawaii.edu

Melissa Kunitzer: naganuma@Hawaii.edu

#### **Course information**

Course website: <http://healthynutrition101.weebly.com>

Laulima website: <https://laulima.hawaii.edu/portal>

MyPyramid.gov website: [www.mypyramid.gov](http://www.mypyramid.gov)

#### **Course Goals**

##### **Rationale or Need:**

The overall goal of this Healthy Nutrition course is to assist young people in learning valuable life skills that will enable them to meet the challenges they will encounter in regard to their physical, emotional, and mental well-being. The increase of onset (type 2) diabetes, obesity, lack of energy, slower mental and muscle response, and other health risks in children, teenagers, and young adults are, in part, due to poor nutritional choices. Education is a fundamental tool for guiding young people toward a healthy and nutritious lifestyle.

##### **Describe how the course will improve conditions or address a problem or need:**

As young people learn essential facts about the correlation between nutrition and health, they also learn to make informed, wise, and good decisions. Comparing current nutritional lifestyles to a beneficial and preferred lifestyle increases knowledge of total well-being. Healthy nutrition which promotes long-term health and deters harmful risks will help students choose a healthy, fulfilling, and more rewarding life!

**Explain why the Web is the preferred method of instructional delivery:**

The Web for online learning is the preferred method of instructional delivery for several reasons. The Online course serves as a supplement to the face-to-face instruction. It is a perpetual source of information where students have access 24/7. Content can be easily updated to reflect the latest nutritional facts, data, and information. Furthermore, dialogue amongst students can occur in discussions, blogs, or private messaging which builds a community of learners and encourages a supportive social network.

**Required Course text and Supplies**

Textbooks: No text book. All materials will be provided by the instructors in the form of PDFs, PowerPoints, websites, videos, and online readings. Students will keep a notebook for all handouts, in the appropriate sections. Students are responsible to keep ALL papers, handouts, notes, etc. as a personal record of the course.

Outside material needed:

- *Software and hardware required:*
  - Macbook that is issued to every student by KHS
    - Applications: Microsoft Office suite (Word, PowerPoint), iMovie, Quicktime, DVD Player
  - Flash Drive used for final project and to carry data.
  - WIFI Internet connection
- *Supplies:*
  - 1 inch Binder
  - 1 set of dividers
  - Notebook Paper
  - Pens ( blue or black)
  - Highlighter Marking Pen

**Student Responsibilities**

- *Come to class on time and **Ready** to work*
- *Follow school and class **Rules***
- ***Respect** opinions of others*
- *You are **Responsible** for what you want to get out of this class, make the most of it.*

**Honor Pledge:**

As members of the Kamehameha ‘Ohana...we are guided by our high school Core Ethical Values and inspired to conduct ourselves in a manner that honors the Legacy of our benefactress Ke Alii Bernice Pauahi Bishop. We look to this code of conduct and those who have gone before us to light our pathway toward academic and personal excellence. We responsibly (kuleana) take an active part in our learning process and do not cheat on homework assignments and tests.

**Students with special needs:**

The Americans with Disabilities Act prohibits discrimination against individuals with physical or psychological disabilities. It is the policy of KS to make its programs, services, and activities accessible to a qualified person with a disability, unless there is a fundamental alteration in the nature of the program or service, undue hardship, or the student poses a direct threat to him or herself, or to others. A “qualified person with a disability” refers to an individual with a disability who is otherwise qualified to participate in any given school, program, or activity.

**Study help information:**

It is the student’s responsibility to ask for study help when the need arises. The student and teacher will agree upon a time to meet. The teacher may require you to arrange for study help.

**Student Learning Objectives****Food Guide Pyramid – [www.mypyramid.gov](http://www.mypyramid.gov)**

The high school student -

- will be able to navigate the MyPyramid website, given a computer, Internet access, and url address, with each attempt.
- will be able to create an individualized nutrition plan, after submitting their age, sex, weight, height, and activity level, within 5 minutes.
- will compare their present daily diet to their newly created MyPyramid.gov customized plan, given the results from myPyramid.gov, by listing their food intake in a 24-hour meal journal.

**Dietary Guidelines - <http://www.cnpp.usda.gov/default.htm>**

The high school student -

- will be able to list the U.S. Dietary guidelines in their web journal, after watching the U.S. Dietary guidelines tutorial, without error as defined by the tutorial.
- will be able relate the U.S. Dietary guidelines to their own personal diet, after completing the U.S. Dietary guidelines tutorial, by submitting a personal comparison journal.
- will be able to explain the U.S. Dietary guidelines, given a computer, Internet access, and PowerPoint software, with a five-minute, multi-media presentation plan for how Americans can meet the Dietary Guidelines.
- will be able to identify health risks related to excess sodium intake, given computer, Internet access, and PowerPoint software, within their five-minute, multi-media presentation plan for how Americans can meet the Dietary Guidelines.
- will be able to identify health risks related to excess sugar intake, given computer, Internet access, and PowerPoint software, within their five-minute, multi-media presentation plan for how Americans can meet the Dietary Guidelines.

**Nutrients**

The high school student -

- will be able to list the three major nutrients in a Lulima discussion post after reading the given materials on nutrients..
- will be able to give three examples of nutrients in a Lulima discussion post after reading the given materials on nutrients.
- will be able to explain how the nutrients support bodily functions and prevent disease in a group presentation after reading the given materials on nutrients.

**Reading labels**

The high school student -

- will accurately cite the different parts of an anatomy of a nutrition label, given 3 food item labels, on 2 out of 3 different food labels.
- will compose a list of the Recommended Daily Allowance (RDA) for fiber, sugar, carbohydrates, and fat, after completing the RDA tutorial, as defined by the RDA tutorial.

**Fiber, Sugar & Fat**

The high school student -

- will be able to explain the importance of fiber, sugar and fat to the human digestive system upon completing the “It’s an inside job” module, in a one page essay.
- will be able to identify a whole grain product, after viewing the dietary video and written description, as defined by the formula for measuring fiber in grams.
- will be able to calculate the teaspoons of sugar in a serving of a food product, given a formula and a food label, as defined by the formula for measuring the amount of teaspoons of sugar in each gram.
- will be able to define the types of fat on a food label, after viewing the informational PowerPoint on fats by posting an example of each fat in the class discussion.

**Fast food vs Fresh food (final project/unit idea):**

The high school student

- will explain the dangers of the selected fast food items after receiving project instructions and a rubric, by correctly analyzing the fat, sugar, and sodium content in a twelve-slide PowerPoint presentation.
- will identify a local, sustainable, fresh food alternative to the fast food menu item given a list of Hawaii vendor items by including the information in the twelve-slide PowerPoint presentation
- will provide an example of a health related disorder or disease attributed to fast food choices, given the food facts from their chosen menu items, within their twelve-slide PowerPoint presentation.

**Grading Procedures**

- Required information for all papers turned in written in right hand corner.
  - Both your first and last name
  - The date
  - One point deducted for any of the above bullets missing on papers.
- 2. There is no rounding off on grades.
- 3. The final project is worth 20% of your unit grade: Planning and research, content and creativity of final project, class presentation.

**Grade Components:**

1. A maximum number of Possible Points (PP) will be given to each assignment, lab, quiz/test, and project. These are weighted according to the amount of time and effort needed to complete them.
2. Grades include individual work, group work, discussions, participation, and a group final project.

**Grading Scale:**

<u>% of possible points</u>	<u>Grade</u>
100-97	A+
96-93	A
90-92	A-
89-86	B+
85-83	B
80-82	B-
79-76	C+
75-73	C
70-72	C-
69-66	D+
65-63	D
62-60	D-
BELOW 60	F

Grades will be updated on a regular basis.

Students can also calculate their own grades with their own records by dividing the total points earned by the total points possible to find the percentile average. Use the grading scale above to determine the equivalent achievement letter grade.

**Extra credit information:**

Extra credit will be available throughout the unit. Extra credit points can be earned by completing additional learning activities related to an assignment.

**Policy on makeup work**

Absences: It is the student's responsibility to check with the teacher about any missed assignments. All class work should be made up as promptly as possible.

**Homework/ Papers Turn in Policy:**

Full Credit: On time, by the due date and time

Minus 10%: Each day thereafter for homework papers.

Minus 20%: For special projects late one day. 10% each day thereafter

No Credit: Four (4) days from original due date.

Missed Exam/ guest speaker: If you are absent for an exam, you must make arrangements with the teacher to make it up on the day you return, not to exceed 2 days from the exam date. If you miss a guest speaker, you are required to view a tape of the speaker's presentation and/or complete an alternative assignment.

## Appendix B

### *Reading and Video List*

#### **List of readings and the video web addresses for each week**

Class site: <http://healthynutrition101.weebly.com>

#### **Week 1**

##### Required Videos and Readings:

Video: Ann Cooper talks school lunches

[http://www.ted.com/talks/ann\\_cooper\\_talks\\_school\\_lunches.html](http://www.ted.com/talks/ann_cooper_talks_school_lunches.html)

Reading: Nutrition for Children and Teens

<http://life.familyeducation.com/nutrition-and-diet/growth-and-development/44301.html>

Reading: Harvard School of Public Health

<http://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/>

#### **Week 2**

##### Required Videos and Readings:

Reading: WebMD Health News: The New Dietary Guidelines by Daniel DeNoon

<http://www.webmd.com/diet/news/20110131/new-us-diet-guidelines-what-not-to-eat>

Video: U.S. Issues New Dietary Guidelines

<http://www.youtube.com/watch?v=MYEaOTQa-0w>

#### **Week 3**

##### Required Videos and Readings:

Reading: All about food labels

<http://teens.webmd.com/all-about-food-labels>

Video: Nutrition by Natalie

Food Labels 1

<http://www.youtube.com/watch?v=IswhmS4J5ac>

Food Labels 2

<http://www.youtube.com/watch?v=WQWMmxFJ2BU>

#### **Week 4**

##### Required Videos and Readings:

Reading: Why do we need more Fiber?

<http://www.webmd.com/diet/features/why-you-need-more-fiber>

Video: What is Fiber, Truth about Fiber

<http://www.youtube.com/watch?v=B5cz5iZMQaI>

Reading: The Truth about Sugar

<http://www.webmd.com/food-recipes/features/health-effects-of-sugar>

The Truth about Fat, Nutrition, and Cholesterol

[http://helpguide.org/life/healthy\\_diet\\_fats.htm](http://helpguide.org/life/healthy_diet_fats.htm)

Voicethread PowerPoint: Fiber, Sugar & Fat

<http://voicethread.com/#q.b1807466.i9495040>

## Week 5

### **Optional** Videos and Readings:

Optional Reading: Fast food news articles and information

[http://www.naturalnews.com/fast\\_food.html](http://www.naturalnews.com/fast_food.html)

Optional Videos: Nutrition by Natalie

The Fast Food Conspiracy

<http://www.youtube.com/watch?v=8IKQbqkzMzI>

Healthy Fast Food?

<http://www.youtube.com/watch?v=OqjIkBxSCgQ>

Worst Fast Food Items

[http://www.youtube.com/watch?v=txh3DE\\_42vQ](http://www.youtube.com/watch?v=txh3DE_42vQ)

Worst Non-Fast Food Items

<http://www.youtube.com/watch?v=l7SjzU6snTs>

### Appendix C

#### *Final Project Multimedia Rubric*

Multimedia Project	Poor	Fair	Good
<b>Fast food and Fresh Food Choice</b>	Fast food and fresh food choice is weak in meeting assignment requirements.	Fast Food and Fresh Food choice has potential, but potential was not completely met.	Fast food and fresh food choice was excellent and your group carried ideas on to completion.
<b>Technology Application</b>	Students used PowerPoint but did not take advantage of creative and effective tools available.	Students used PowerPoint to display data and research. Students did not present data or research in the best format to show results.	Students made full use of PowerPoint and its capabilities as needed to display data and research. Use of multimedia was not a distraction but an aide in the presentation of data.
<b>Group Work</b>	Students were assigned group work but worked as individuals. Entire group did not work together to complete project. Work was assigned to one or two individuals to complete.	Students worked in a group. Specific student responsibilities were at times misunderstood or unclear. Perhaps students had a hard time establishing roles. Communication and cooperation failed at times.	Students worked in a group setting where tasks were divided up equally, jobs were understood and cooperation and communication was maintained.
<b>Research and Data</b>	Research was sparse. Data found was borrowed or irrelevant to topic.	Students performed research and presented data. Not all data was displayed in the most proper format. Sources perhaps were not all credible or well documented.	Research and data was thorough and cohesive. Data was processed and displayed in graphs or charts as raw data was processed. Sources included are credible and documented.
<b>Presentation</b>	Presenters relied on media for presentation. Effort was not informative or clearly communicated.	Presentation was complete. Perhaps all individuals did not participate in presentation or perhaps group participants were too reliant on PowerPoint instead of using it as an aide.	Presentation was clear and thorough. All individuals from group participated in presentation. Media aided presentation but did not drive presentation. Slides were not read or contain all information needed.

**Appendix D*****Post Test (Laulima)***

## Questions:

1. What component doesn't exist on MyPyramid?
  - a. fats and oils
  - b. exercise
  - c. fruits and vegetables
  - d. sugars\*
2. Which of the following are Dietary Guidelines for 2010?
  - a. enjoy your food but eat less
  - b. avoid oversized portions
  - c. make half your plate fruits and veggies
  - d. drink water instead of sugary drinks
  - e. all of the above\*
3. Why is fiber important to the body?
  - a. lose weight
  - b. aid in digestion\*
  - c. gain weight
  - d. protein
4. For every 100 calories there should be \_\_\_\_\_ grams of fiber to be considered whole grain.
  - a. 4
  - b. 2\*
  - c. 5
  - d. none of the above
5. In moderate amounts Sugar adds pleasure to meals.
  - a. True\*
  - b. False
6. The recommended daily allowance for sugar is \_\_\_\_\_grams based on a 2000 calorie diet.
  - a. 100
  - b. 35\*
  - c. 65
  - d. 50
7. \_\_\_\_\_are essential to the human body when people consume too much or too little that is when ill health occurs.
8. Carbohydrates
  - a. Fiber
  - b. Water
  - c. Fats\*

9. High Fat diets raise the risk of the following diseases EXCEPT
- heart disease
  - obesity
  - arthritis\*
  - some types of cancer
10. The main purpose of food labels is to
- regulate what is in unconventional foods
  - supply information to the consumer
  - allow consumers to see what they are eating
  - both a and b\*
11. Which one of the following nutrients is not required on a food label?
- Vitamin A
  - Vitamin C
  - Calcium
  - Vitamin E\*

**Appendix E**

***TCC Conference PowerPoint***

See next page and following for PowerPoint

# Healthy Nutrition 101



University of Hawai'i, Mānoa

Educational Technology

Developing E-Learning Environments

Sharice Cabral, Lauren Kodani, Melissa Kunitzer

# ISD Team

**Sharice Cabral**



- 2<sup>nd</sup> Year Graduate Student

**Laureen Kodani**



- 1<sup>st</sup> Year Graduate Student

**Melissa Kunitzer**



- 1<sup>st</sup> Year Graduate Student

**Educational Technology**



# Quick Poll #1

- Do you feel you understand nutrition enough to make healthy choices?



# Quick Poll #2

- Do you feel adolescents and teenagers understand nutrition enough to make healthy choices?



# Objective

- Educate students about healthy and unhealthy nutrition and its effects on personal well-being.



**VS.**





# Need and Rationale

- Healthy and unhealthy effects
- Unit for Personal Health Course
  - Update content
  - Update learning objects
  - Integrate technology & multimedia
  - Face-to-face evolves to a hybrid



# Audience

- 9th and 10th grade students
- High school in Honolulu, Hawaii
- Diverse group of students
- Required semester course





# Intended Outcome

- Viable online module
- Informative
- Fun yet challenging
- Clean and usable website
- Accessible
- 21st century learning



# Online Course Development

- Collaborative Process
  - ADDIE
  - Learning Objects
  - Content
  - Multimedia materials



# Online Course Development

- Collaborative Process
  - Laulima
  - Weebly
  - Elluminate Live!
  - Google Docs
  - Skype



# Website Comparison

<http://foreverheavy.com>

A



<http://www.maisonmartinmargiela.com>

B



# Laulima Result

University of  
Hawai'i

Home 

[Healthy Nutrition  
101](#) 

[Syllabus](#) 

[Schedule &  
Resources](#) 

[Discussion](#) 

[Assignments](#) 

[Mailtool](#) 

[Wiki](#) 

[Tests & Quizzes](#) 

[Gradebook](#) 

[Site Info](#) 

[Help](#) 

Users present:

Site Information Display

[Options](#)

Welcome to Healthy Nutrition 101



The overall goal of this Healthy Nutrition course is to assist young people in learning valuable life skills that will enable them to meet the challenges they will encounter in regard to their physical, emotional, and mental well-being. The increase of onset (type 2) diabetes, obesity, lack of energy, slower mental and muscle response, and other health risks in children, teenagers, and young adults are, in part, due to poor nutritional choices. Education is a fundamental tool for guiding young people toward a healthy and nutritious lifestyle.

**Instructors:**

Shance Cabral: [shance@hawaii.edu](mailto:shance@hawaii.edu)

Laureen Kodani: [ampong@hawaii.edu](mailto:ampong@hawaii.edu)

Melissa Kunitzer: [naganuma@hawaii.edu](mailto:naganuma@hawaii.edu)

**HELPFUL TIPS:**

The course website may be accessed through Laulima in the section titled [Healthy Nutrition 101](#). The url is <http://healthynutrition101.weebly.com>. The class schedule, weekly



# Weebly Result

## Healthy Nutrition 101

HOME

WEEKLY TOPICS

MATERIALS

	Week 1	
	Week 2	
	Week 3	
	Week 4	
	Final Project	

### Introduction

The overall goal of this Healthy Nutrition course is to assist young people in learning valuable life skills that will enable them to meet the challenges they will encounter in regard to their physical, emotional, and mental well-being. The increase of onset (type 2) diabetes, obesity, lack of energy, slower mental and muscle response, and other health risks in children, teenagers, and young adults are, in part, due to poor nutritional choices. Education is a fundamental tool for guiding young people toward a healthy and nutritious lifestyle.

As young people learn essential facts about the correlation between nutrition and health, they also learn to make informed, wise, and good decisions. Comparing current nutritional lifestyles to a beneficial and preferred lifestyle increases knowledge of total well-being. Healthy nutrition which promotes long-term health and deters harmful risks will help students choose a healthy, fulfilling, and more rewarding life!



# Look and Feel

- A clean and purposeful website
- Synchronous and asynchronous course
- Implementation in progress
- Evaluation for improvements
- Recommendations



# Learner Skills Set

- Dynamic
- Resourceful
- Innovative
- Digital Native
- Social Networker
- Global Interaction



# HealthyNutrition101.weebly.com



## Week 4 - Fiber, Sugar and Fats

### Synchronous session via Elluminate:

Recording of the synchronous session and PowerPoint will be made available after the session.

Recording link: TBA

PowerPoint file: [Healthy Nutrition 101 - Fiber, Sugar, & Fats](#)

- Narrated power point highlighting benefits and effects of fiber, sugar and fat



[healthy\\_nutrition\\_101\\_sugar\\_fats\\_fiber.pdf](#)

[Download File](#)

### Asynchronous:

- Reading & Viewing materials located here and in Lulima Resources:
  - Reading: [Why you need more fiber](#)
  - Video: Nutrition by Natalie
    - Fiber: [What is Fiber, Truth about Fiber](#)



- Video: The real deal on whole grains (Link to video pending)
- Reading: [The Truth about Sugar](#)



# Weekly Content

- Introductions and Food Pyramid Guide
- U.S. Dietary Guidelines
- Nutrients and Reading Labels
- Fiber, Sugar, and Fats
- Multimedia Project



# Recommendations

- Communication
- Timeline
- Review and feedback



# Conclusion

<http://healthynutrition101.weebly.com>

## Questions?

Sharice Cabral [sharice@hawaii.edu](mailto:sharice@hawaii.edu)

Laureen Kodani [ampong@hawaii.edu](mailto:ampong@hawaii.edu)

Melissa Kunitzer [naganuma@hawaii.edu](mailto:naganuma@hawaii.edu)

